

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-22. (Canceled)

23. (Currently Amended) A cartridge ~~containing a particulate material~~
~~wherein the cartridge includes~~ comprising:

a dissolvable particulate material;

an inner space ~~for housing~~ configured to house the dissolvable particulate material;

an inlet arranged to permit the introduction of a liquid into the inner space, said inner space being configured to permit the dissolvable particulate material to be dissolved in said liquid;

an outlet arranged to permit the discharge of said liquid comprising the dissolved particulate material from the inner space; and

a filter arranged at the outlet, said filter configured to permit passage of the liquid comprising the dissolved particulate material through the filter, but to prevent passage of undissolved quantities of the dissolvable particulate material through the filter, wherein the filter permits the liquid comprising the dissolved particulate material to pass through the filter in a filter direction (x), wherein the filter includes at least one slit-shaped opening having a first extension and a second extension, said second extension being substantially perpendicular to the filter direction (x) and to the first extension, wherein the second extension is significantly shorter than the first extension and is also

significantly shorter than the length of the slit-shaped opening in the filter direction (x), and wherein the filter is formed by a filter element having a shape of a substantially planar disc, said slit-shaped opening extending through the filter element.

24. (Currently Amended) A cartridge according to claim 23, wherein the filter is a first filter, and wherein the cartridge also includes a second filter arranged at the inlet, said second filter being configured to permit passage of the liquid through the second filter in a filter direction (x), but to prevent passage of undissolved quantities of the dissolvable particulate material through the second filter, said second filter including at least one slit-shaped opening having a first extension and a second extension, said second extension being substantially perpendicular to the filter direction (x) and to the first extension, wherein the second extension of the second filter is significantly shorter than the first extension of the second filter, and wherein the second filter is formed by a filter element, said slit-shaped opening of the second filter extending through the filter element of the second filter.

25. (Canceled)

26. (Currently Amended) A cartridge according to claim ~~23~~ or 24, wherein the second extension of ~~both~~ at least one of the first filter ~~and~~ or the second filter is equal to or less than 0.12 mm.

27. (Currently Amended) A cartridge according to claim ~~23~~ or 24, wherein the second extension of ~~both~~ at least one of the first filter ~~and~~ or the second filter is equal to or less than 0.10 mm.

28. (Currently Amended) A cartridge according to claim ~~23~~ or 24, wherein the second extension of ~~both~~ at least one of the first filter ~~and~~ or the second filter is equal to or more than 0.02 mm.

29. (Currently Amended) A cartridge according to claim ~~23~~ or 24, wherein the second extension of ~~both~~ at least one of the first filter ~~and~~ or the second filter is equal to or more than 0.04 mm.

30. (Currently Amended) A cartridge according to claim ~~23~~ or 24, wherein the second extension of ~~both~~ at least one of the first filter ~~and~~ or the second filter is approximately 0.06 mm.

31. (Currently Amended) A cartridge according to claim ~~23~~ or 24, wherein both the first filter and the second filter are made of a polymer material, including one of polypropylene and polycarbonate.

32. (Currently Amended) A cartridge according to claim ~~23~~ or 24, wherein the first extension of both the first filter and the second filter is substantially perpendicular to the filter direction (x).

33. (Canceled)

34. (Currently Amended) A cartridge according to claim ~~23~~ or 24, wherein both the first filter and the second filter include a plurality of slit-shaped openings, which extend through the filter element of the first filter and the second filter.

35. (Currently Amended) A cartridge according to claim 34, wherein the first extension of both the first filter and the second filter extends towards a centre point of the filter element.

36. (Canceled)

37. (Currently Amended) A cartridge according to claim 24, wherein the filter element of the second filter has a conical shape.

38. (Currently Amended) A cartridge according to claim ~~23~~ or 24, wherein the slit-shaped openings of the filter elements of the first filter and the second filter have a first end and a second end, wherein the second extensions of the slit-shaped openings of the first filter and the second filter increase from a minimum value at one end of each of the slit-shaped openings to a maximum value at the other end of the openings.

39-42. (Canceled)

43. (Currently Amended) A cartridge according to claim ~~23~~ or 24, wherein the first and second filters are made through an injection moulding process.

44. (Currently Amended) A cartridge arranged to contain a particulate material, wherein the cartridge includes:

a dissolvable particulate material;

an inner space ~~for housing~~ configured to house the dissolvable particulate material;

an inlet arranged to permit the introduction of a liquid into the inner space, said inner space being configured to permit the dissolvable particulate material to be dissolved in said liquid;

an outlet arranged to permit the discharge of liquid comprising the dissolved particulate material from the inner space; and

a filter arranged at the inlet and configured to permit passage of the liquid through the filter, but to prevent passage of undissolved quantities of the dissolvable particulate material through the filter, wherein the filter permits the liquid to pass through the filter in a filter direction (x), wherein the filter includes at least one slit-shaped opening, which has a first extension and a second extension being substantially perpendicular to the filter direction (x), and to the first extension, wherein the second extension is significantly shorter than the first extension and is also significantly shorter than the length of the slit-shaped opening in the filter direction (x), and wherein the filter is formed by a filter element having a shape of a substantially planar disc, wherein the slit-shaped opening extends through the filter element.

45. (Canceled)

46. (Previously Presented) A cartridge according to claim 44, wherein the second extension is equal to or less than 0.12 mm.

47. (Previously Presented) A cartridge according to claim 44, wherein the second extension is equal to or less than 0.10 mm.

48. (Previously Presented) A cartridge according to claim 44, wherein the second extension is equal to or more than 0.02 mm.

49. (Previously Presented) A cartridge according to claim 44, wherein the second extension is equal to or more than 0.04 mm.

50. (Previously Presented) A cartridge according to claim 44, wherein the second extension is approximately 0.06 mm.

51. (Previously Presented) A cartridge according to claim 44, wherein the filter is made of a polymer material, including one of polypropylene and polycarbonate.

52. (Previously Presented) A cartridge according to claim 44, wherein the first extension is substantially perpendicular to the filter direction (x).

53. (Canceled)

54. (Previously Presented) A cartridge according to claim 44, wherein the filter includes a plurality of slit-shaped openings, which extend through the filter element.

55. (Previously Presented) A cartridge according to claim 54, wherein the first extension of each slit-shaped opening extends in a radial direction towards a centre point of the filter element.

56. (Canceled)

57. (Previously Presented) A cartridge according to claim 44, wherein the filter includes a peripheral support portion connected to the filter element and abutting an inner wall of the cartridge.

58. (Previously Presented) A cartridge according to claim 57, wherein the peripheral support portion has a peripheral surface and includes a plurality of ridges projecting from the peripheral surface and abutting the inner wall of the cartridge, wherein a thin gap is formed between the peripheral surface and the inner wall, said gap providing a further passage for the liquid.

59. (Previously Presented) A cartridge according to claim 44, wherein the slit-shaped opening of the filter element has a first end and a second end wherein the second extension of the slit-shaped opening decreases from a maximum value at the first end of the slit-shaped opening to a minimum value at the second end of the opening.

60. (Previously Presented) A cartridge according to claim 44, wherein the filter is made through an injection moulding process.

61. (Withdrawn) A use of a filter in a cartridge containing a particulate material, wherein the cartridge includes:
an inner space for housing the particulate material;
an inlet arranged to permit the introduction of a liquid into the inner space;
an outlet arranged to permit discharge of liquid from the inner space; and

at least one filter arranged at the outlet and to permit passage of the liquid through the filter, but to prevent passage of the particulate material through the filter, wherein the filter permits the liquid to pass through the filter in a filter direction (x), wherein the filter includes at least one slit-shaped opening, which has a first extension, the use including the step of supplying said liquid to the cartridge in such a way that the liquid passes through the particulate material and thereby dissolves at least a part of the particulate material to form a liquid solution.

62. (Withdrawn) A use according to claim 61, wherein the liquid is a dialysis liquid.

63. (Withdrawn) A use according to claim 61 or 62, wherein the particulate material includes bicarbonate and/or sodium chloride.

64. (Withdrawn) A use according to claim 61, wherein the liquid includes a cleaning substance.

65. (Withdrawn) A system for preparing a liquid solution for a medical procedure, the system including:

a cartridge containing a particulate material in an inner space thereof and including an inlet and an outlet;

a first liquid conduit having a first end communicating with a source of liquid to withdraw the liquid into the first liquid conduit and a second end;

a second liquid conduit having a first end communicating with a source of liquid and a second end communicating with the inlet of the cartridge for introducing the liquid into the inner space to produce a concentrate liquid solution containing at least a part of the particulate material dissolved in the liquid;

a third liquid conduit communicating with the outlet of the cartridge and with a mixing point in the first liquid conduit intermediate said first and second ends for conducting said concentrate liquid solution from the cartridge into said first liquid conduit to be mixed with the liquid being conducted through the first liquid conduit to thereby produce said liquid solution in the first liquid conduit for delivery to said second end of the first liquid conduit; and

at least one filter arranged at the outlet and to permit passage of the liquid through the filter, but to prevent passage of the particulate material through the filter, wherein the filter permits the liquid to pass through the filter in a filter direction (x), wherein the filter includes at least one slit-shaped opening, which has a first extension and a second extension being substantially perpendicular to the filter direction (x) and to the first extension, wherein the second extension is significantly shorter than the first extension.

66. (Withdrawn) A system according to claim 65, wherein the cartridge includes a second filter arranged at the inlet and to permit passage of the liquid through the filter, but to prevent passage of the particulate through the filter, wherein the second filter permits the liquid to pass through the filter in a filter direction (x), wherein the second filter includes at least one slit-shaped opening, which has a first extension and a second extension being substantially perpendicular to the filter direction (x) and to the first extension, wherein the second extension is significantly shorter than the first extension.

67. (Withdrawn) A system according to claim 65 or 66, wherein the filter is intended to permit passage of a liquid through the filter and thus the cartridge, but to

prevent passage of the particulate material, wherein the filter permits the liquid to pass through the filter in a filter direction (x), the filter includes at least one slit-shaped opening being substantially perpendicular to the filter direction (x) and to the first extension, wherein the second extension is significantly shorter than the first extension, said second extension being significantly shorter than the length of the slit-shaped opening in the filter direction (x).

68. (Withdrawn) A system according to claim 65, wherein the liquid is a dialysis liquid.

69. (Withdrawn) A system according to claim 65, wherein the particulate material includes bicarbonate and/or sodium chloride.

70. (Currently Amended) A cartridge according to claim ~~23~~ or 24, wherein the second extension of the first filter and the second filter is equal to or less than 0.08 mm.

71. (Previously Presented) A cartridge according to claim 44, wherein the second extension is equal to or less than 0.08 mm.

72. (Currently Amended) A cartridge arranged to contain a particulate material, wherein the cartridge includes:

a dissolvable particulate material;

an inner space ~~for housing~~ configured to house the dissolvable particulate material;

an inlet arranged to permit the introduction of a liquid into the inner space, said inner space being configured to permit the dissolvable particulate material to be dissolved in said liquid;

an outlet arranged to permit the discharge of liquid comprising the dissolved particulate material from the inner space;

at least a first filter arranged at the outlet, the first filter being formed by a filter element having a shape of a substantially planar disc; and

at least a second filter arranged at the inlet and configured to permit passage of the liquid through the second filter, but to prevent passage of undissolved quantities of the dissolvable particulate material through the second filter, wherein the second filter permits the liquid to pass through the filter in a filter direction (x), wherein the second filter includes at least one slit-shaped opening, which has a first extension and a second extension being substantially perpendicular to the filter direction (x), and to the first extension, wherein the second extension is significantly shorter than the first extension and is also significantly shorter than the length of the slit-shaped opening in the filter direction (x), and wherein the second filter is formed by a filter element having a conical shape, wherein the slit-shaped opening extends through the filter element of the second filter.